Cir. 4.
1,000, April, 1910.

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370.7309713
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SYLLABUS

OF

Courses and Regulations

FOR

The Model Schools

AT

Cornwall, Durham, Kingston, Orillia, Renfrew, and North Bay.

SESSION 1910

ONTARIO
DEPARTMENT OF EDUCATION

TORONTO:
Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty.
1910

Printed by
WILLIAM BRIGGS,
29-37 Richmond Street West,
TORONTO

The Model Schools of Ontario, 1910

LOCATION AND PURPOSE.

1.—(1) The Model Schools are situated at Cornwall, Durham, Kingston, Orillia, and Renfrew. Provision is also made at the North Bay Normal School for Model School work.

(2) The purpose of the Model Schools is to prepare teachers of the Third Class, in the theory and the art of organizing, governing, and instructing the pupils of the Public and the Separate Schools; and to improve the general culture of such teachers and, in particular, their academic preparation for teaching the subjects prescribed in the programme of studies.

(3) The attached Urban Public and Separate Schools, and the attached Rural Schools, are used, as required, to afford the teachers-in-training adequate means of observing well-conducted Schools, and of securing practice in teaching, discipline, and management.

SESSION.

2. The session of the Model Schools will begin on the first day of September, 1910, and will end on the sixteenth day of December, 1910.

CONDITIONS OF ADMISSION.

Application to the Deputy Minister.

3. Application for admission shall be made to the Deputy Minister not later than August 15th, 1910, on a form to be supplied by him.

4. (1) The applicant shall forward with his application to the Deputy Minister on official forms supplied by him, the following certificates:—

(*a*) A certificate from competent authority that he will be at least eighteen years of age before December 31st, 1910.

(*b*) A certificate from a clergyman, or other competent authority, that he is of good moral character;

(*c*) A certificate from a physician that he is physically able for the work of a teacher, and, especially, that he is free from serious pulmonary affection and from seriously defective eyesight or hearing.

(2) The applicant shall also submit one of the following:—

(*a*) A certificate of having passed the District Certificate Examination of 1904, or any subsequent year.

(*b*) A certificate of having passed the Examination for Entrance into the Model Schools.

(*c*) A certificate of having passed the July Examination for Entrance into the Normal Schools or Faculties of Education, *or* of having obtained 50 per cent. of the aggregate marks in either of these examinations with 34 per cent. in each paper; provided that in all such cases the candidate satisfies the Principal of the Model School that he is competent in the subjects of the Model School Entrance Examination which are not required at the said July Examinations. For either of the above examinations written in 1909 or previously, 40 per cent. of the aggregate and 25 per cent. in each paper will be accepted.

NOTE.—Candidates are hereby notified that they must present themselves at the date prescribed in paragraph 2, and comply fully with the conditions prescribed in paragraphs 3 and 4.

DUTIES OF PRINCIPALS AND ASSISTANTS.

5.—(1) Subject to the regulations and to the approval of the Minister of Education, the Principal of each Model School shall prescribe the duties of his staff and shall be responsible for the efficiency of the Model School.

(2) The other members of each staff shall be subject to the authority of the Principal.

DUTIES OF TEACHERS IN TRAINING.

6.—(1) Teachers-in-training shall board and lodge at such houses only as are approved of by the Principal.

(2) They shall attend regularly and punctually, and shall submit to such discipline and directions as the Principal may prescribe.

(3) Teachers-in-training who, in the opinion of the staff, are unduly defective in scholarship, or whose conduct or progress is unsatisfactory, may be dismissed by the Principal at any time during the session from further attendance at the Model School.

(4) All applicants are strongly advised to review carefully before entering, the work of the Lower School of the High Schools.

TEXT BOOKS.

7.—(1) The text-books for the academic work shall be those prescribed in such subjects for the High Schools.

(2) The text-books for the professional work shall be those prescribed for the Public Schools, and those printed below in italics.

LITERARY SOCIETY.

8. A Literary Society for general culture and for professional advancement shall be established in each Model School, and shall be fostered

by the staff as an important part of the Course of Study. It should begin immediately after the work of organization has been completed, and should meet once each week until the special preparation for the final examination begins. The programmes should include essays, debates, recitations, and the reproduction of suitable scenes from standard plays.

EXAMINATIONS.

Subjects and Values.

9.—(1) (*a*) The final standing of the teacher-in-training shall be determined on the combined results of his sessional records (including Class Tests and Observation and Practice-teaching) and the prescribed final examination.

(*b*) The final examination papers shall be uniform for all the Model Schools, and shall be based upon the courses as laid down in this Syllabus.

(2) (*a*) The examinations in Groups II. and III. shall include a thorough test of the academic qualifications of the teacher-in-training.

(*b*) At the examination in Groups I. and II. there shall be one paper on each of the following subjects, and the maximum marks for each subject of the examination shall be as follows: the marks for the Sessional Records in each subject being 20 per cent. of the maximum.

Group I.

Professional. Principles of Education, School Organization and Management, each 100.

Group II.

Academic and Professional. Arithmetic, Literature, Grammar, History, Composition, Geography, and Nature Study, each 100.

Group III.

(3) The marks counted in estimating the final standing of the teacher-in-training in the following subjects shall be those awarded him during the session, more especially towards the close thereof, for the oral, written, and practical tests in matter and, where applicable, in method, the maximum for each subject being as follows:—

Academic and Professional. Art, Music, Reading, Spelling, Writing, Physical Training, and Physiology and Hygiene, each 100; School Law and Regulations, 50.

Group IV.

(4) The marks counted in estimating the final standing of the teacher-in-training in Observation and Practice-teaching shall be those awarded him in these subjects during the session and more especially towards the close thereof, after an introductory course of lessons in each. The maximum marks for Practice-teaching shall be 1,000, and those for Observation lessons 200.

Certificates.

10.—(1) A teacher-in-training who at the final examination obtains 40 per cent. of the marks in each subject and 60 per cent. of the aggregate of the marks for each of Groups I., II., III., and IV., may on the recommendation of the staff be awarded a Limited Third Class certificate valid for five years.

(2) A teacher-in-training who fails at the final examination in either or both of Groups I. and II., but who passes in Groups III. and IV., may, on the recommendation of the staff and Board of Examiners, obtain a Limited Third Class certificate without attending a second session, by passing at a subsequent examination in the Group or Groups in which he has failed. All other candidates who fail shall attend a second session.

(3) Candidates who are exempt from attendance at a Model School and who are actually engaged in teaching, shall be exempt from an examination in Group IV., provided they submit to the Minister a certificate from their last Inspector that they have taught successfully for at least six months. The pass standard shall be 40 per cent. of the marks for each subject and 60 per cent. of the aggregate of marks for each of Groups I., II., and III.

PROGRAMME OF STUDIES.

11.—(1) The courses of study for teachers-in-training shall consist of the following:

(*a*) A review, as far as time will permit, of the Public School course and of the academic subjects, from the standpoint of pedagogy and the requirements of the Public and Separate Schools, including special instruction in Reading, Writing, Art, Physical Training, Physiology and Hygiene, Music, School Law and Regulations.

(*b*) The Principles of Education and General Methodolgy, Special Methodology, and School Organization and Management.

(*c*) Supervised Observation in the Public Schools.

(*d*) Supervised Practice teaching in the Public Schools.

ORDER OF THE COURSES.

12.—(1) In order that the teacher-in-training may begin early the Observation work and the Practice-teaching, the following introductory courses shall be taken up in the following order:

(*a*) The prime essentials of the course in the Principles of Education and General Methodology.

(*b*) A course of Observation in the different forms of the Public Schools.

As soon as the course begins, one lesson a day shall be given in the course in (*a*) and in (*b*), the total number in each being from ten to fifteen.

(2) To prevent the dissipation of energy which would result from the concurrent study of a large number of subjects diverse in content, the system of intensive study should be followed so far as circumstances will permit. In the order of the courses and the grouping of the subjects, due regard should be had to the character of each subject and its natural relations, and to the logical development of the courses and their relative functional value in the pedagogy of the Public School programme. When a subject has been finished, it should from time to time be reviewed with a further extension of the most important parts, having due regard to its character and importance.

(*a*) On the professional side after the completion of the Introductory Course [12 (1) (*a*)] the course in the Principles of Education should be taken up three times a week until finished. The course in School Organization and Management should be taken up from the first three times a week until finished.

(*b*) The minimum number of periods for each of the professional and academic subjects should be as nearly as practicable as follows:

The Principles of Education, including the Introductory course, 35; School Organization and Management, 30; School Law and Regulations, 5; Arithmetic, 20; Grammar, 15; Literature, 15; History, 10; Geography, 15; Language and Composition, 20; Spelling, 8; Reading, 20; Nature Study, 15; Physiology and Hygiene, 8; Art, 15; Music, 10; Physical Training, 8; Writing, 15.

OBSERVATION AND PRACTICE TEACHING.

13.—(1) The Introductory Courses provided for in Regulation 12 (1) (*b*) shall be followed by systematic Observation and Practice-teaching, the minimum number of Observation lessons being 30 and of Practice-teaching lessons 20; but these numbers shall be increased to meet the necessities of individual teachers-in-training.

(2) (*a*) The teachers-in-training shall be divided into suitable groups, and the work of Observation and Practice-teaching shall be taken up systematically per time-table arranged from time to time.

(*b*) At least that group to which the teacher-in-training belongs shall be present at the discussions on his Observation and Practice-teaching lessons.

(3) The Observation and Practice-teaching lessons for each teacher-in-training shall, as far as practicable, be arranged so as to cover the work of the Public Schools in all subjects and in all grades.

(4) (*a*) Teachers-in-training shall be notified by the Principal, of the subject and the scope of the Observation lesson, and shall prepare the lesson beforehand.

(*b*) After observing the lesson, they shall submit a report upon it to the teacher concerned.

(5) (*a*) Teachers-in-training shall be notified of the subject and the scope of the Practice-teaching lesson, by the teacher of the Public School, after consultation with the Principal.

(*b*) Teachers-in-training shall prepare a plan of each Practice-teaching lesson for submission to the teacher concerned.

(6) Model lessons for Observation by the students shall be taught by the teachers of the School in accordance with the regular programme of the Model School.

(7) (*a*) The necessary applications of the Principles of Education and of Special Methodology shall be made systematically by the Model School Principal in connection with the Model and the Observation lessons and the Practice-teaching; so that the course may be taken up in terms of the child's mind and growth.

(*b*) Concerted work on the part of the teachers in the Model School shall be secured by frequent conferences, especially before the work concerned begins.

SYLLABUS OF COURSES.

Educational Principles and General Methodology.

14. The object of the course is to provide teachers with such a working conception of the nature of Education and of Methodology as will improve natural tact and skill by determining procedure and forming ideals.

(1) Aim of Education: Examination of some of the current definition of Education; relation of aim to procedure in Education.

(2) Function of the school: The relation of the school to other social institutions, the home, the church, the state, the vocation.

(3) Subject Matter of Instruction: Purpose and value of subjects of study.

(4) Methods of Instruction: Purpose of methods of instruction; necessity of basing methods of instruction on the knowledge of the laws of mental development.

(5) Instincts and Interests: The place of natural tendencies in the development of mental life; a study of some of the more significant of the child's instincts and interests; methods of eliminating, strengthening or modifying instincts or interests.

(6) Habit and Association: Nature of habit; relation of habit to instinct; condition of the formation of habits; the laws of habit applied to school studies, especially to those involving the acquisition of skill, such as writing, reading, manual training, art, etc.; the place of habit in character formation; nature of association; conditions of association; relation of association to habit; how to form permanent associations.

(7) Apperception: Nature of apperception; necessity for making subjects taught meaningful; the process of interpreting the new in terms of the old applied to school studies; significance of the maxim, "Proceed from the known to the related unknown."

(8) Attention: Nature of attention as a process; conditions of attention; relation of attention to habit and association; interest in its relation to attention; voluntary and non-voluntary attention distinguished; attention in young children and in adults compared; methods of securing and retaining attention; obstacles to attention.

(9) Retention: Conditions of retention; the relation of retention and apperception; the factors in efficient recall; functions of the drill lesson and of the review lesson; methods of conducting drill and review.

(10) Individual and General Notions: How they are distinguished from each other; how individual notions should be approached and presented; how to proceed from individual to general notions; the value of types in the development of general notions; how general notions should be applied.

(11) Laws underlying the Process of Teaching: The relation of analysis to synthesis, of induction to deduction.

(12) Impression and Expression: Their interdependence; importance of this interdependence as the basis for the constructive side of school work; its bearing upon the development of character.

(13) The Plan of the Recitation: Adjustment to the needs of the capacities of the pupils; relation of previous work; examination of the "five formal steps" of the Herbartians.

(14) Teaching Devices: Use of questioning in the development of the individual and general notions; right and wrong methods of questioning; examination of the so-called Socratic method; answers; qualities of a good answer; treatment of faulty answers; mistakes in dealing with answers; illustrations; their office and value.

Books of Reference:—

McMurry: *Method of the Recitation.*
Gordy: *Psychology.*
Tilley: *Methods of Teaching.*

School Organization and Management.

15. The object of the course is to give the teacher, in the light of the principles of education, a knowledge of the technique of school management and organization, which shall enable him to secure the smooth and efficient working of his school. The course includes the following topics:

(1) *The Teacher*: Natural qualifications of a good teacher; importance of scholarship, of training, of experience, of professional studies, of wide culture, of Teachers' Associations, etc.; the teacher's relations with the Principal, the Inspector, or trustees, parents; civic and social duties; personal power and influence in the school, in the community; daily preparation for teaching; correcting written exercises; care of health.

(2) *Classification*: The meaning and the problems of school organization; promotions, when and how made; in graded schools the division of subjects and pupils among the several teachers.

(3) *The Daily Programme*: Its purpose and value; principles involved in the construction of a time-table; seat work; individual blackboard work; the question of fatigue; typical time-tables for graded and for ungraded schools; school records.

(4) *Written Examinations*: Good effects; bad effects; school results that cannot be tested by examinations; how to set examination papers; reading and valuing the answers; examinations as related to promotions.

(5) *School-room Routine*: Chief varieties of mechanizing routine, their advantages and disadvantages; appointment of monitors.

(6) *Desirable School Habits*: Punctuality; neatness in person and in work; accuracy; quietness; industry; obedience; the relation of the preceding to moral training.

(7) *School Incentives*: Kinds and office; effects on character, on school work, on health.

(8) *Order and Discipline*: What is meant by good order; the chief elements of governing power; faults and how to avoid them; co-operation of school and home; punishment; ends and necessity; right conditions; characteristics of judicious punishment; injudicious punishment; the discipline of consequences.

(9) *Physical Education*: Relations of physical and intellectual development; importance of change of work; value of plays and games; organized or unorganized play; dangers of fatigue; the teacher on the playground; physical exercise within the school.

(10) *The Kindergarten*: Its essential principles; relation to the school system as a whole.

NOTE.—For information as to the necessary details of School Accommodations and Equipment, the teacher-in-training is referred to Circular 33.

BOOKS OF REFERENCE:—

Millar: *School Management.*

Bagley: Class Management.

White: School Management.

Landon: Principles and Practice of Teaching and School Management.

SPECIAL METHODOLOGY.

16. The object of the course is to prepare the teachers-in-training for intelligently observing and teaching in all grades of the attached Public Schools, by enabling them to apply the principles of education and, in particular, to adapt to the work in each subject the principles of General Method. The work in the special method of each subject is introduced by a few lessons of a general character, embracing the application of the principles of General Methodology to the teaching of the subject. These introductory lessons are followed by a series of a more detailed character, dealing with:

(1) The selection and the organization of material for the Public School Forms, taken in order, from the standpoint of presentation to the pupil.

(2) The discussion of special methods of instruction concurrent with the academic review of the subject matter.

The courses shall be taken up in terms of the Public School Programme of Studies, the provisions of which shall be constantly kept in mind.

General Books of Reference:—

Chubb: Teaching of English.
Hodge: Nature Study and Life.
Dearness: How to Teach Nature Study.
Silcox and Stevenson: Nature Study.
Geikie: Teaching of Geography.
Annandale: The Concise Imperial Dictionary.

I. Language and Composition.

17. The special object of the course in Language and Composition is to prepare the teacher to train his pupils to speak and to write good English as a fixed, unconscious habit. The course includes the following topics:—

The importance of language training; the place of a knowledge of the mother tongue in education; the value of clearness, force and grace of expression.

Oral and written composition: Their relation; how habits of speaking and writing correctly are formed; the effect of the teacher's example upon the pupil's language; importance of libraries for supplementary reading; influences opposed to good usage; incidental work in language training; expression as a stage in the development of every lesson; necessity for special exercises in oral and written composition.

Methods in oral and written composition: Methods of encouraging pupil's free natural expression and of extending his vocabulary through oral exercises; principles governing criticism of oral work; the dangers connected therewith and the means of avoiding them; value of formal linguistic exercises; the relation of a knowledge of grammatical rules to the development of correct forms in speech; method of correcting common errors; relative value of pupil's own language and of special exercises in false syntax as material for criticism; the principles to be kept in view in conducting exercises in written composition; supervision and aid during writing; value of topical outlines; the place of home-work in written compositions; methods of correcting compositions; value of re-writing.

Mechanics of written composition: Sentence and paragraph structure; paragraph compositions; the use of capitals, punctuation marks, quotation marks, abbreviations, etc.

Materials for written and oral composition: Principles governing choice of topics; gathering, selecting and arranging material; class answers as material for oral composition; importance of framing questions that will require answers of considerable length; the reproduction of fairy and folk stories, fables, poems, biographies; relative value of reading and telling stories; transition from reproduction to originality; descriptions of personal experiences, real and imaginary; pictures suggestive of stories, school games, autobiographies of familiar things; developing themes from minor incidents, themes connected with school studies, general themes; letter writing, with special attention to form and style; invitations and replies thereto; bills, receipts, promissory notes, etc.

II. Reading.

18. The special object of the course in Reading is to prepare the teacher to train his pupils to get the writer's thought and feelings (*intelligent reading*) and to communicate them to the listener so that he may appreciate them (*intelligible reading*). The course includes the following topics:—

The scope of reading: Its correlation with other subjects; importance of training in reading and the principles of vocal expression to pupil's ordinary speech and general culture; the limitations of the pupil's ability to interpret words; his previous preparation.

Forms of reading: The function and value of silent reading, sight reading, dramatic reading, elocution, declamation.

Methods in reading: Examination of the various methods of teaching beginners to read; advantages and disadvantages of each; devices for securing rapid word recognition and for fixing attention on the thought as well as upon the word forms in the earlier stages; means of securing natural expressive reading; the place and limitations of imitative reading; common faults on the part of both pupil and teacher and how to correct them; criticism by teacher and by pupils. Change in purpose and methods of reading as determined by the development of the pupil's experience and powers; the necessity for giving attention to expression in all stages; the objects of advanced reading; methods of developing in pupils the habit of reading for thought and pleasure; reading as a means of creating and fostering a taste for good literature.

III. Spelling.

19. The special object of the course in Spelling is to prepare the teacher to secure accuracy in the mechanism of written word-expression. The course includes the following topics:—

Scope of spelling: Its correlation with other subjects; causes of the difficulties experienced by pupils in learning to spell; causes of incorrect spelling.

Methods in spelling: Necessity for teaching, not merely testing spelling; examination of the various methods of teaching spelling; the adaptation of each to the nature of the words and to the individual mental characteristics of pupils; phonic exercises and word-building in relation to spelling; syllabication; the place of transcription and dictation; methods of checking and correcting errors; value of re-writing; prevention *versus* correction; the character of drill and review exercises in spelling; methods of varying the spelling recitation; value of rules in spelling.

Materials for spelling: Principles of selection of material for spelling; grouping of words for the purpose of spelling; incidental spelling; uses of the dictionary and of the spelling-book.

IV. Literature.

20. The special object of the course in Literature is to prepare the teacher to create in his pupils a taste for good literature, while broadening their knowledge, moulding their characters, and aiding them to appreciate the beauty and the power of artistic expression of thought and feeling. The course includes the following topics:—

Selection of subject-matter for Literature Lessons: Qualities of literature that appeal to children of different ages; basis of selection of material for different grades; lists of suitable fairy tales, fables, nature stories, etc., adapted to children of lower grades and of general works for pupils in the highest forms; complete wholes *versus* extracts.

Methods in teaching literature: Methods of dealing with primary literature; comparison of values of reading and telling; the application of the general principles of method to the teaching of literature; method in supplementary reading contrasted with that in exact study; the importance and method of memorizing selections; the value of oral reading in the interpretation and appreciation of literature; the importance of the teacher's own ability to read well.

Lesson procedure: Preparation of the pupils; necessity for preparing a suitable mood for the lesson; how far the author's biography has a place here; preliminary reading of the selection; the main thought of the lesson grasped in a more or less indefinite way through a reading of it; the analysis of a selection into its wider thought, elements and the analysis of these again into their elements; the place of explanation of words and phrases; the use of the dictionary; the relation of the subordinate thoughts to the unity of the whole, the main thought of the selection as made definite by the analysis; the oral reading of the selection by pupils after study; the value of oral and written reproduction; suitable seat work.

Examinations in literature: Difficulties of examining in literature; specimen examination questions.

Teacher's preparation: Special importance of teacher's own qualifications; sessional private reading-courses for teachers-in-training; suggestions for their future reading.

School Library: Principles to be kept in view in selecting works for the school library; methods of making use of school library; means of securing the co-operation of the home in the pupil's reading.

V. Grammar.

21. The special object of the course in Grammar is to prepare the teacher to secure precision of expression on the part of his pupils, to train them in habits of logical analysis, and to give them a basis for self-criticism in language by developing the principles of language structure. The course includes the following topics:—

Meaning of Grammar; the relation of grammar to speech; correlation with other subjects; reasons for and against retaining it in elementary schools; reasons for deferring the formal study till Form IV.

The sentence as the starting point; basal value of function; order and method of teaching the parts of speech; principles of classification as applied to grammar; inflection, use and value of our remaining inflections; rules of syntax, their value; use of grammatical terminology; definitions, their value; how to be obtained, how to be applied; analysis and parsing, aim and value of each; value of diagrams; oral and written exercises; treatment of false syntax.

VI. History.

22. The special object of the course in History is to prepare the teacher to train pupils to adapt human experiences to present situations. In the elementary stages the chief objects are to arouse an interest in historical studies, to enable the pupils to appreciate the logical sequence of events, and to give them a knowledge of their civil rights and duties; also to stimulate a love of country. The course includes the following topics:—

The scope of History: The correlation of history with other subjects, especially geography; the special value of Canadian and of British history; the proper perspective in the development of the subjects; parts enlarged in the academic review; what makes an event important.

Methods: The recitation, its form and purposes; the place of oral teaching and of blackboard work by teacher, and of written exercises at seat and at blackboard by pupils; methods in oral and in written work; the use of pictures, maps, etc.; of readers and of the text-book; relation of method to the personality of the teacher and his knowledge of the subject; special importance of preparation of lesson by teacher owing to mass of detail; errors to be avoided.

The selection and arrangement of material suitable for different grades; the place and purpose of each of the following:—

History of the aborigines, pioneers, local history.

Biography: The natural attractiveness of biography; the relation of biography to history; the effects of a study of biography on the development of character; selection of suitable biographies for pupils of different grades, as the lives of explorers, navigators, and soldiers for primary grades; of statesmen, poets, scientists, etc., as representing more complex conditions, for pupils of higher grades.

Civics: Ends to be kept in view in teaching civics; consideration of work to be undertaken in civics; study of civic institutions as appearing in their lowest forms among primitive peoples; the beginnings of governments, of courts, of school systems, of factories, of means of transportation, etc., study of present forms of civic institutions.

Epochs: Their relation to biography; systematic chronological study of history; its value and its dangers; the causal sequence of events.

Supplementary material: The use of mythology, ballads, orations, epics, legends, tales of chivalry, narrative poems, and historical novels; character of history readers and of supplementary works for the different grades. Significance and value of the Flag.

VII. Geography.

23. The special object of the course in Geography is to prepare the teacher to extend the pupils' knowledge of the earth and its relation to life thereon, and to assist them in interpreting and utilizing their physical environment in accordance with their needs. The course includes the following topics:—

The scope of Geography; its relation to other subjects, especially to Nature Study, History, and Elementary Science.

The review of the course should lay special emphasis on the study of the earth's surface and the changes wrought thereon by the various agencies; rock formation and soils; distribution of mineral products; plant and animal life; the earth's relation to other heavenly bodies; weather and climate; man's relation to the rest of the world; commercial and political geography.

Methods: Consideration of the order of development of the subject in rural and urban schools; the use of maps, globes, pictures, blackboard drawings, natural objects, specimens of products, stereoscopic views; modelling, map drawing, scales and projections; weather observations and records, simple experiments in explanation of natural phenomena (See course in Experimental Science); excursions in connection with the observations in local geography; the use of reference library, books of travel, geography readers, etc., common mistakes in teaching geography and means of avoiding them; special importance of preparation of lesson by teacher owing to mass of details.

VIII. Nature Study.

24. The special object of the course in Nature Study is to broaden and deepen the teacher's sympathies and interests, and, through him, those of his pupils, by training them to observe and interpret the common phenomena of the world about him. The course includes the following topics:—

The character and scope of nature study; its relation to formal science; its correlation with other subjects.

Material for Nature Study: Conditions determining the choice of material for nature study lessons for pupils of different grades, and for varying conditions in rural and urban schools; uses and limitations of books, pictures, models, collections, etc.; supplementary materials such as stories, literature, etc.

Methods in Nature Study: Nature Study as a method; special characteristics of a typical nature study lesson; directions for conducting school excursions. The study of special topics dealing with materials of nature study and illustrating methods of presentation in all grades of public schools, the topics to be typical and to be selected from various grades and departments of the Public School course of study.

NOTE.—Teachers-in-training should make frequent excursions for the purpose of studying materials in their natural environment and relations. They should make collections of different kinds for their own use as well as to enable them to direct as teachers the practical side of nature study. The nature of the collections will be regulated by the kind of school in which the student will likely teach; rural teachers should make collections of weeds, weed seeds, economic plants, diseased plants, injurious and beneficial insects, etc.; urban teachers, of factory products, garden flowers, etc.

IX. ARITHMETIC.

25. The special object of the course in Arithmetic is to improve the teacher's knowledge of the subject that he may use it effectively as a means of logical training, and more particularly that he may be prepared to give his pupils such instruction in the various arithmetical processes, as will enable them to make with accuracy, rapidity, and facility, the calculations and computations which their future life may render necessary. The course includes the following topics:

The scope of Arithmetic; its relation to the other subjects of the curriculum; importance of its practical aspects as related to the lives of the pupils; danger of over-estimating its value as training in logic; the various steps involved in the development of the number idea; the unit, its nature and use; the necessity for standard units; number, a ratio.

Methods in Arithmetic: Analysis and synthesis, induction and deduction, compared, illustrated, and applied; graphic methods; use of concrete material in making clear new processes and in verifying and interpreting operations performed; the use of text-books and of prescribed apparatus; the importance of training in, and devices to secure neatness, accuracy and speed in computation; the importance, place, and treatment of oral arithmetic; the value of problems; the essentials of proper solutions; solutions by full analysis, and by performing operations only; "unitary" method and method of direct measurement; grading of problems; interest in problems for which the pupils themselves furnish the material; blackboard work; drill and examination work in arithmetic.

A thorough treatment of the various arithmetical operations and their applications with special stress upon the requirements of teachers engaged in public school work. This should include the following:—

Counting; measuring with standard units; numbers 1 to 10, from 10 to 20, etc.; number pictures; notation and numeration; addition-tables, exercises, devices; subtraction by decomposition, by equal additions, and by complementary additions; multiplication, relation to other operations, tables, exercises, factors; division, short and long, factoring, cancellation, division by factors; measures and multiples.

Fractions: How and when to be introduced, different interpretations, notations, rules for operations deduced and applied; decimal fractions, correspondence of methods of numeration, notation, and operations with those of integers, recurring decimals.

Applied Arithmetic: Percentage, trade discount, commission, insurance, taxes, interest, discount, stocks, exchange; tables of weights and measures; the metric system; mensuration including the areas of rectangles, triangles, parallelograms, and circles, and the volume of rectangular solids, cylinders, and prisms; square root.

X. Writing.

26. The object of the course in Writing is to train the teacher to write rapidly and legibly, and to make him familiar with the best means of securing the most satisfactory results in the teaching of the subject. This course includes the following topics:—

The purpose of writing; its correlation with other subjects.

Penholding; position at the desk; position of the paper; the proper formation of the small and the capital letters and the figures; various movement exercises; practice on paper and on the blackboard.

Use of headlines and copybooks; use of blank paper; its ruling; value of transcription, dictation and composition in writing; use of the blackboard to teach the correct form of each letter singly and in combination; how general and individual faults are corrected; the formation of a characteristic hand; how to deal with pupils having some physical disability.

Note.—After the teacher-in-training has mastered in class the proper formation of the letters, etc., and the movement exercises, the master should require him to hand in from time to time exercises for criticism until his handwriting is satisfactory.

The writing in the Schools is so generally defective that the subject must receive special emphasis.

XI. Art Work.

27. The special object of the course in Art is to give the teacher such a knowledge of the subject, such a training of his æsthetic nature, and such facility in the use of Art as a means of expression, as will enable him to develop like tastes and powers in his pupils. The course includes the following topics:—

The scope of art; art as a mode of expression and a means of æsthetic culture; its correlation with other subjects in the school course.

Freehand Drawing: How to use the various mediums, pencil, charcoal, crayon, ink with pen or brush; the drawing of common flat objects, such as leaves, grasses, brooms, shovels, saws, hammers, in an appropriate medium; the drawing of common spherical, cylindrical and rectangular solids, illustrating the principles of freehand perspective; the grouping of objects; simple landscapes from nature and imagination; illustration of games, occupations, nursery rhymes and stories, pose drawing; drawing from casts.

Blackboard Drawing: The use of white, black, and coloured crayons on the blackboard and on large pieces of paper; rapid illustrative sketches to aid in the teaching of all subjects; blackboard drawing specially important to the teacher as a means of expression; the representation in colour, neutral values, and sepia, of leaves, grasses, flowers, fruits, trees, insects, pet animals, birds, and common objects; the grouping of objects; simple landscapes from nature and imagination; elementary composition of pictures.

Books of Reference:—

Prang's *Text Books of Art Education;* 7 books, $2.40.

Prang's Drawing Course.

XII. Music.

28. The special object of the course in Music is to train the teacher in the use of Music as a means of self-expression and of æsthetic culture. The course includes the following topics:—

Tune: Practice in singing from the staff and tonic-solfa modulators; intervals of moderate difficulty, contained in the major diatonic scales; modulation from any given key to its relative minor, and its dominant and subdominant.

Time: Practice in singing rhythmical studies in simple or compound duple, triple, or quadruple time; the pulse as the unit of measurement in time, with its divisions into halves, quarters, or thirds in varied combination.

Voice Culture: Practice in correct tone production; vowel formation; enunciation of consonants; breath control; correct intonation; and the equalization of the various registers of the voice.

Songs: The study of songs suited to the requirements of pupils in all grades of Public and Separate Schools, with special attention to development of power in musical expression.

Notation: Elements of notation, both tonic-solfa and staff; the formation of the major and minor diatonic scales; elements of modulation and transposition.

Methods: Concurrently with the foregoing course, a practical knowledge of recognized systems of teaching the tonic-solfa and staff notations.

Note.—Teachers-in-training who, from any cause, consider themselves incapable of learning to sing should present their cases to the teacher of music at the beginning of the term. If, on examination, it should be found necessary, special instruction will be provided, adapted to their needs; and their efforts to overcome any natural disability which may be found to exist, will be taken into account at the oral examination at the close of the term. The written examinations, however, are compulsory for all students, and, if the teacher-in-training is unable to sing, his certificate will state so.

XIII. Physiology and Hygiene.

29. The object of the course in Hygiene is to train the teacher in the knowledge requisite for the maintenance of the health of both himself and his pupils, and to qualify him for supervising the sanitary conditions of the school and its surroundings. The course includes the following topics:

Contagious and Infectious Diseases: How to detect existence of common infectious and contagious diseases; modes of preventing spread of these diseases; sanitary legislation; duties of the teacher.

Personal Hygiene.

Care of teeth, skin, eyes and ears; relation of exercise to health; effects of alcohol and tobacco.

Accidents and Emergencies: First aid in such cases as fainting, suffocation, drowning, hemorrhage, fractures and dislocations, venomous stings, poisoning, frost-bites, sunstroke and heat-stroke, burns; bandaging.

Book of Reference:—

Knight: Introductory Physiology and Hygiene.

XIV. Physical Training.

30. The special object of the course in Physical Culture is to enable the teacher to make proper provision for the physical training of his pupils.

Series of graded exercises to be used as recreation in class-room in intervals between classes.

Recreative gymnastics, or gymnastic games; indoor and outdoor games

XV. School Law and Regulations.

31. The Ontario School Law and Regulations so far as they deal with the duties and obligations of teachers and pupils.